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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,827	10/23/2003	Hiroshi Yasuda	031202	5424
23850	7590	06/24/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP			ROSS, DANA	
1725 K STREET, NW			ART UNIT	
SUITE 1000			PAPER NUMBER	
WASHINGTON, DC 20006			3722	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/690,827

Applicant(s)

YASUDA ET AL.

Examiner

Dana Ross

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/23/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 3, it is not clear what Applicant is claiming by the term “an APC body” (see disclosure, page 3, line 4). For the purpose of this examination, APC will mean Automatic Pallet Changer.

Claim 3, it is not clear what is meant by the limitation of “when the swivel servomotor is turned on and off, said pallet change arm is swiveled...”. It is not clear if the pallet arm is swiveled either when the motor is turned on or off, or if there is an on/off sequence before swiveling.

Claim 4, it is not clear what is meant by the pallet change arm being in a standby position with a “first pallet grip position”, a “second pallet grip position” and “in another predetermined position”.

The above is not meant to be all-inclusive. Applicant is required to review all claims to ensure all claim language is in compliance with 35 USC 112 1<sup>st</sup> paragraph.

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3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors making it difficult, in general, to understand what is being claimed. For example, it is not clear what is being claimed by the following phrases:

Claim 1, line 9, and claim 6, line 8, states "positioned while directing upwardly".

Claim 2, line 3 and line 6, "in the vicinity of the machining area and outside the machining area".

Claim 9, line 2-3, "performs a cutting by a rotating tool...to the workpiece".

The above is not all-inclusive, but is a sampling of the grammatical and idiomatic errors that make it difficult to determine what is being claimed. Applicant is required to review all claims and ensure all claim language is in compliance with 35 USC 112 2<sup>nd</sup> paragraph.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,678,291 (Braun, hereafter '291) in view of US Pat. No. 5,992,608 (Ahn, hereafter '608); and in the alternative '608 in view of '291.

'291 teaches a 5-axis machining center (col. 1, lines 30-33, for example) with a vertical spindle movable in three mutually transverse axes (fig. 2, for example) that performs milling and turning (col. 1, lines 14-16 and col. 6, lines 61-65, for example); a table 45 disposed below the spindle and driven to be swingable while directing upwardly and making at least an index motion (fig. 7, col. 6, lines 18-60, for example);

'291 does not disclose the claimed pallet changer.

'608 teaches an automatic pallet changer 24 mounted to a machining center (see fig. 1, col. 3, lines 15, for example) provided outside a machining area (col. 2, lines 15-20, for example) with a pallet change arm with gripping portions 34, 38 (see fig. 2, 3 for example) which swivels in the horizontal plane and moves vertically (see col. 3, lines 16-19 and col. 4, lines 1-52, for example). It is noted that '608 teaches the use of a hydraulic motor 42 for the rotation of the change arm (col. 4, lines 9-12, for example). Examiner notes that a hydraulic motor is known in the art as a "servomotor" as is evidenced by US Pat. No. 3,910,419 (Becker et al.). See Becker et al., column 2, lines 3-4.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machining center as taught by '291 to include the automatic pallet changer as taught by '608 for the purpose of increasing production by providing an automated continuous supply of workpieces through the use of an automatic pallet changer and for reducing the machining center cost (see '608 col. 1, lines 26-40, for example).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the generic machining center as taught by '608 to include the specific machining center as taught by '291 for the purpose of reducing cost, increasing machining precision and providing a machine of high degree of structural rigidity (see '291, col. 4, lines 1-5, for example).

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***Conclusion***


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
dmr

  
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